Product Information

LymphoPrime
Complete Medium for Peripheral Blood Lymphocytes
Cat. No. LPR-B (100 ml)

General Information

LymphoPrime Medium is intended for use in short-term cultivation of peripheral blood lymphocytes for chromosome evaluation. The medium is based on a basal medium, supplemented with L-Glutamine, fetal bovine serum, antibiotics (gentamicin), and phytohemagglutinin-M (PHA-M). It is supplied as frozen medium, which is ready for use after thawing.

Product Specifications

Appearance	Clear yellow to red frozen liquid
Storage and shelf life	Store at ≤-15°C protected from light. Do not use this product after its expiry date. Once opened, store at +2°C to +8°C and use within 10 days.
Shipping conditions	Frozen (Dry Ice)
Thawing	Thaw LymphoPrime Medium at refrigerator temperatures (+2°C to +8°C) or by swirling bottle in a +37°C water bath. Mix gently after thawing. Note that the medium already contains L-Glutamine, antibiotics, and PHA-M.

For lot specific data (Certificate of Analysis), please refer to our website: www.capricorn-scientific.com/products/

Instructions for Use

Culture of Peripheral Blood Lymphocytes for Chromosome Analysis:

Blood cell karyotyping of lymphocytes is an important tool in modern human cytogenetics to detect chromosomal abnormalities. Lymphocytes usually do not undergo subsequent cell divisions. In the presence of a mitogen (e.g. PHA), lymphocytes are stimulated to enter into mitosis. After 48 – 72 hours, a mitotic inhibitor (e.g. colcemid) is added to the culture to stop mitosis in the metaphase stage. After treatment by hypotonic solution, fixation and staining, chromosomes can be microscopically observed and evaluated for abnormalities.

1. Thaw LymphoPrime Medium and make aliquots of 10 ml (sterile tubes).
2. Thaw the precalculated amount of LymphoPrime Medium (in tubes) until room temperature is reached.
3. Transfer 0.5 ml of heparinized whole blood into a tube containing 10 ml LymphoPrime Medium.
4. Incubate the culture at +37°C, 5 % CO_2 in an incubator for 72 hours.
5. Add 0.1 – 0.2 ml of Colcemid Solution (Cat. No. COL-H) to each culture tube (at a final concentration of 0.1 µg/ml). Incubate the culture for additional 15 – 30 minutes.
6. Transfer the culture to a centrifuge tube and spin at 500 g for 5 minutes.
7. Remove the supernatant and resuspend the cells in 5 – 10 ml of hypotonic 0.075 M KCl, prewarmed to +37°C. Incubate at +37°C for 10 – 12 minutes.
8. Spin at 500 g for 5 minutes.
9. Remove the supernatant, agitate the cellular sediment and add drop-by-drop 5 – 10 ml of fresh, ice-cold fixative, made up of 1 part acetic acid to 3 parts methanol. Leave at + 4°C for 10 minutes.
10. Repeat steps 8 and 9.
11. Spin at 500 g for 5 minutes.
12. Resuspend the cell pellet in a small volume (0.5 – 1 ml) of fresh fixative, drop onto a clean slide and allow to air dry.
13. At this stage, the preparation can be stained with Orecin or Giemsa. For Giemsa staining, the most widely used method, you can use one of the common staining protocols or the protocol established in your laboratory.

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Precautions and Disclaimer

For *in vitro* diagnostic use.
The medium is not intended for therapeutic use.
Do not use if a visible precipitate is observed in the medium.
Use of LymphoPrime Medium does not guarantee the successful outcome of any prenatal diagnostic testing.
Do not use LymphoPrime Medium beyond the expiration date indicated on the product label.

Signs and Symbols

REF	Order number
LOT	Batch Code
	Storage conditions: temperature limit
	Expiration date
STERILE A	Aseptic filling
IVD	*In vitro* diagnostics

Help Needed?

If you have any further questions regarding this product, please do not hesitate to contact our cell culture experts by email (techservice@capricorn-scientific.com) or phone (+49 6424 944640).